Index of Claims



Application/Control No.

09/832,200

Date

Examiner

**HELEN SHIBRU** 

Applicant(s)/Patent under Reexamination

KIM, CHUL-MIN

Art Unit

2621

| √ | Rejected |
|---|----------|
| = | Allowed  |

(Through numeral) Cancelled Restricted

Non-Elected N Interference

**Appeal** Α 0 Objected

|          | Щ        |   |                                     |          | i        |              |  | _          |     |       |          |                 |   |          |   |
|----------|----------|---|-------------------------------------|----------|----------|--------------|--|------------|-----|-------|----------|-----------------|---|----------|---|
| Claim    | 1        |   |                                     | 206      |          |              |  |            | 1 1 | CI    | .:       | _               |   |          | - |
| Claim    |          | <del>                                      </del> |                                     | Date     | _        | _            |  |            |     | Ula   | im       | $\vdash$        |   |          | Т |
| Final    | 9/25/06  |   |                                     |          |          |              |  |            |     | Final | Original |                 |   |          |   |
| 1        | ᠇        | <del>                                     </del>  | ┢                                   | $\vdash$ | -        |              |  |            | 1 1 |       | 51       | Н               |   |          | t |
|          | レ        |   |                                     |          |          |              |  |            | 1 1 |       | 52       |                 |   |          | T |
| 3        | レ        |   | Г                                   |          |          |              |  |            |     |       | 53       | П               |   |          | Γ |
| 4        | V        |   |                                     |          |          |              |  |            | 1   |       | 54       |                 |   |          | Γ |
| 5        | レ        |   |                                     |          |          |              |  |            |     |       | 55       |                 |   |          |   |
| 6        | レ        |   |                                     |          |          |              |  |            |     |       | 56       |                 |   |          |   |
| 7        | ~        |   |                                     |          |          |              |  |            |     |       | 57       |                 |   |          | L |
| 8        | 1        | 1   |                                     |          |          |              |  |            |     |       | 58       |                 |   |          | L |
| 9        | ~        | $\sqcup \!\!\!\! \perp$                           | <u> </u>                            |          | Ш.       |              |  | _          |     |       | 59       |                 |   |          | L |
| 10       | <u> </u> |   | $ldsymbol{ldsymbol{ldsymbol{eta}}}$ |          |          |              | _  | _          |     |       | 60       | Ш               |   |          | L |
| 11       | +        |   | _                                   |          |          |              |  | <u> </u>   | l l |       | 61       |                 |   |          | L |
| 12       |          |   | L                                   |          | _        |              |  | L          |     |       | 62       | Ш               |   |          | L |
| 13       | 1        | <del></del>                                       | <u> </u>                            |          | _        |              | $\vdash$   |            |     |       | 63       | Щ               | _ |          | H |
| 14       |          |   | -                                   |          | _        | _            | _  | _          | 1   |       | 64       | Н               |   |          | ┞ |
| 15       |          |   | -                                   | -        |          |              | $\vdash$   | _          |     |       | 65       | Н               |   |          | ╀ |
| 16<br>17 |          | -   | -                                   |          | _        |              | H  | _          | 1   |       | 66<br>67 | Н               |   |          | H |
|          |          |   | $\vdash$                            | H        | _        |              | -  | ⊢          | 1   |       |          | Н               |   |          | ╀ |
| 18<br>19 | -        |   | $\vdash$                            |          | _        |              | -  | ⊢          | H   |       | 68       | -               |   |          | H |
| 20       |          |   | H                                   | -        |          |              | -  | -          | 1 1 |       | 69<br>70 | Н               |   |          | ╁ |
| 21       | 1        | $\vdash$  | $\vdash$                            | $\vdash$ | $\vdash$ |              | $\vdash$   | ⊢          | 1   |       | 71       | Н               |   |          | ╁ |
| 22       |          | <del></del>                                       | ┢                                   |          | -        |              | -  |            | 1 1 |       | 72       | -               |   |          | H |
| 23       | ╫        |   | _                                   |          | _        | -            |  | $\vdash$   | 1   |       | 73       | Н               |   |          | H |
| 24       |          | <del>                                     </del>  | H                                   |          |          |              |  | $\vdash$   | 1   |       | 74       | -               |   |          | t |
| 25       | +        | $\vdash$  | $\vdash$                            | $\vdash$ | _        |              |  | $\vdash$   | 1   |       | 75       |                 |   |          | H |
| 26       |          |   | _                                   |          | $\vdash$ | _            | <del>                                     </del> | -          | 1   |       | 76       |                 |   |          | t |
| 27       | 11       |   | $\vdash$                            |          |          |              | Н  |            | 1   |       | 77       | П               |   |          | t |
| 28       | 11       |   | T                                   |          |          |              |  |            | 1   |       | 78       |                 |   |          | r |
| 29       | 77       |   |                                     |          |          |              |  |            | 1   |       | 79       |                 |   |          | T |
| 30       |          |   |                                     |          |          |              |  |            | 1   |       | 80       |                 |   |          | Γ |
| 31       | 71       |   |                                     |          |          |              |  |            | 1   |       | 81       |                 |   |          | Γ |
| 32       |          |   |                                     |          |          |              |  |            | 1   |       | 82       |                 |   |          | Γ |
| 33       |          |   |                                     |          |          |              |  |            |     |       | 83       |                 |   |          | Γ |
| 34       |          |   |                                     |          |          |              |  |            |     |       | 84       |                 |   |          |   |
| 35       |          |   |                                     |          |          |              |  |            |     |       | 85       |                 |   |          | L |
| 36       |          |   |                                     |          |          |              |  |            |     |       | 86       |                 |   |          | L |
| 37       | _        | _ _   |                                     |          | Ш        | _            | L  | _          |     |       | 87       | Ш               |   |          | L |
| 38       |          |   | _                                   | <u></u>  |          | _            | Ш  |            |     |       | 88       | Ш               |   |          | L |
| 39       |          | $\sqcup \!\! \perp$                               | <u> </u>                            | <u> </u> | Щ        | L            | Щ  |            |     |       | 89       | Ш               |   | L        | L |
| 40       | 4        |   | ļ                                   |          | _        | L_           | L_   | _          |     |       | 90       | Ш               |   |          | 1 |
| 41       | -        | - -   | <b> </b>                            | <b> </b> | Щ        | L.           | L_   | L_         |     |       | 91       | Ш               |   | _        | L |
| 42       |          | <del>                                     </del>  |                                     | <b> </b> |          | <u> </u>     | <u> </u>   | _          |     |       | 92       | Ш               |   | L        | L |
| 43       | +        | $\vdash \vdash$                                   | $\vdash$                            | $\vdash$ | Ш        | <u> </u>     | Щ  | <u> </u>   |     |       | 93       | $\vdash \vdash$ | _ |          | H |
| 44       |          | ├-  | <u> </u>                            | $\vdash$ | -        |              | <u> </u>   | <u> </u>   |     |       | 94       | -               |   |          | ╀ |
| 45       |          |   | -                                   |          | -        | <u> </u>     | <u> </u>   | <b>-</b> - |     |       | 95       | $\vdash \vdash$ |   |          | ╀ |
| 46       |          | <del>                                     </del>  | $\vdash$                            | $\vdash$ | $\vdash$ | <u> </u>     | $\vdash$   | $\vdash$   |     |       | 96<br>97 | Н               |   | _        | ╀ |
|          |          | $\vdash\vdash$                                    |                                     | -        |          | <u> </u>     | -  | $\vdash$   |     |       |          | Н               | _ |          | ╀ |
| 48       |          | $\vdash\vdash$                                    | _                                   | $\vdash$ |          | <u> </u>     | H  | -          |     |       | 98<br>99 | $\vdash$        |   |          | ⊦ |
| 50       |          | <del>                                     </del>  | $\vdash$                            | $\vdash$ |          | <del> </del> | $\vdash$   | $\vdash$   |     |       | 100      | Н               |   | <u> </u> | ╀ |
|          |          |   | L                                   |          |          | L            | Ц_   | _          | ı l | L     | 100      | لـــا           |   |          | ᆫ |

| Cit      | Claim          |              | Date         |              |          |          |              |          |            |          |  |  |
|----------|----------------|--------------|--------------|--------------|----------|----------|--------------|----------|------------|----------|--|--|
| Final    | Original       |              |              |              |          |          |              |          |            |          |  |  |
|          | 51             |              |              |              |          |          |              |          |            |          |  |  |
|          | 52             | -            | <u> </u>     |              |          |          |              |          | _          | -        |  |  |
| -        | 51<br>52<br>53 | Н            |              | _            | -        |          | -            |          |            | $\vdash$ |  |  |
|          | 54             |              |              |              | Н        |          |              |          |            | $\vdash$ |  |  |
|          | 54<br>55       |              | $\vdash$     |              | -        | _        |              |          |            | $\vdash$ |  |  |
|          | 56             | -            |              |              |          |          |              |          |            | _        |  |  |
|          | 57             | -            | -            |              | Н        | _        | -            | _        | _          | $\vdash$ |  |  |
|          | 58             | $\vdash$     | $\vdash$     |              |          |          |              |          |            | H        |  |  |
|          | 59             |              |              |              |          | -        |              |          |            |          |  |  |
| -        | 60             |              | $\vdash$     |              |          |          |              |          |            | -        |  |  |
| <b>—</b> | 61             |              | _            | _            |          |          |              | $\vdash$ | _          | -        |  |  |
|          | 62             |              | -            |              |          |          |              |          | -          |          |  |  |
|          | 62<br>63       |              |              |              |          |          |              |          |            |          |  |  |
|          | 64             | $\vdash$     | $\vdash$     | $\vdash$     | $\vdash$ | $\vdash$ | $\vdash$     | $\vdash$ | $\vdash$   | $\vdash$ |  |  |
| -        | 65             | $\vdash$     | -            |              | $\vdash$ | $\vdash$ | $\vdash$     | $\vdash$ | $\vdash$   | $\vdash$ |  |  |
| -        | 65<br>66       | $\vdash$     | -            |              | -        | Н        | $\vdash$     | $\vdash$ | $\vdash$   | $\vdash$ |  |  |
| -        | 67             |              | -            |              |          |          |              |          |            | H        |  |  |
| -        | 60             |              |              |              |          |          |              |          |            |          |  |  |
| -        | 68<br>69       | -            |              |              |          |          | _            |          |            |          |  |  |
|          | 70             | H            |              |              |          |          |              |          | -          | -        |  |  |
| -        | 70<br>71       | H            |              |              |          |          |              |          |            |          |  |  |
|          | 72             |              |              | -            |          | -        |              | -        |            |          |  |  |
|          | 72             | H            | -            |              |          |          |              |          |            |          |  |  |
| -        | 74             | <u> </u>     |              |              |          |          |              |          |            |          |  |  |
|          | 73<br>74<br>75 | <del> </del> | _            |              |          | _        |              |          | _          |          |  |  |
| -        | 76             | -            |              |              |          | _        | _            |          |            | $\vdash$ |  |  |
| -        | 76<br>77       |              |              |              |          |          |              |          | _          | H        |  |  |
| -        | 70             |              | -            |              | _        | _        | _            | _        | _          | _        |  |  |
|          | 78<br>79       | -            |              |              |          |          |              |          |            |          |  |  |
| -        | 79             | -            | <u> </u>     |              | -        |          |              |          | _          |          |  |  |
| -        | 80             |              | _            | _            | $\vdash$ | _        |              | _        | _          |          |  |  |
|          | 81<br>82       |              | _            | <u> </u>     |          |          | _            | $\vdash$ | _          | _        |  |  |
| -        | 02             |              | -            | _            | _        |          |              |          |            | -        |  |  |
| -        | 83             | $\vdash$     | -            |              | _        |          |              |          | <b>-</b> - |          |  |  |
| _        | 84<br>85       |              | $\vdash$     | ├—           |          | $\vdash$ | _            | $\vdash$ | $\vdash$   | $\vdash$ |  |  |
|          | 05             | -            | ├─           |              | <u> </u> | -        |              |          | $\vdash$   | -        |  |  |
|          | 86             |              | $\vdash$     | _            | $\vdash$ | <b> </b> |              |          |            | -        |  |  |
| -        | 87             | <u> </u>     | <del> </del> |              | -        |          | -            | $\vdash$ | $\vdash$   | -        |  |  |
| $\vdash$ | 88             | <del> </del> | $\vdash$     |              |          |          | _            | -        | -          | $\vdash$ |  |  |
| -        | 89             | $\vdash$     | $\vdash$     | <u> </u>     | $\vdash$ | -        | _            | $\vdash$ | <u> </u>   | $\vdash$ |  |  |
|          | 90<br>91       | <u> </u>     | $\vdash$     | <u> </u>     | -        | $\vdash$ | $\vdash$     | $\vdash$ | $\vdash$   | ├—       |  |  |
| -        |                | $\vdash$     | H            | Ь.           | $\vdash$ |          | $\vdash$     | $\vdash$ | $\vdash$   | <u> </u> |  |  |
| -        | 92             | $\vdash$     | $\vdash$     | <u> </u>     |          | -        | -            | -        |            |          |  |  |
| $\vdash$ | 94             | $\vdash$     | ├-           | <b></b> -    |          | -        | -            | -        | $\vdash$   | -        |  |  |
|          | 95             |              | ├            | <u> </u>     |          | $\vdash$ | -            |          | $\vdash$   | -        |  |  |
| -        | 96             | $\vdash$     | ├            | <u> </u>     | -        |          | $\vdash$     | -        | $\vdash$   |          |  |  |
| $\vdash$ | 97             | $\vdash$     | $\vdash$     | <u> </u>     |          | $\vdash$ | -            | -        | $\vdash$   | -        |  |  |
|          | 98             | $\vdash$     | $\vdash$     | $\vdash$     | $\vdash$ | —        |              | _        | -          | -        |  |  |
| -        | 99             |              |              | -            | -        |          |              |          | -          | -        |  |  |
|          | 100            | $\vdash$     | $\vdash$     | <del> </del> | -        | H        | <del> </del> | -        | -          | $\vdash$ |  |  |

| Claim |  | Date     |  |               |              |               |          |          |          |  |  |  |
|-------|--|----------|--|---------------|--------------|---------------|----------|----------|----------|--|--|--|
|       |  |          |  |               |              |               |          |          |          | П  |  |  |
| Final | Original                               |          |  |               |              |               |          |          |          |  |  |  |
|       | 101<br>102                             |          |  | $\overline{}$ |              |               |          |          | Г        | П  |  |  |
|       | 102                                    |          |  |               |              |               |          |          |          |  |  |  |
|       | 103                                    |          |  |               |              |               |          |          |          |  |  |  |
|       | 104<br>105                             |          |  |               |              |               |          |          |          | Ц  |  |  |
|       | 105                                    |          | L  |               |              |               |          |          | <u></u>  | Ц  |  |  |
|       | 106                                    | L        | _  | L             |              | _             |          |          |          | Ш  |  |  |
|       | 107<br>108<br>109                      | _        | L  | ļ             |              |               | _        | _        |          | Ц  |  |  |
|       | 108                                    | _        | <u> </u>   | _             | _            | _             | _        | _        | _        | Н  |  |  |
|       | 109                                    |          | <u> </u>   | _             |              | -             |          | <u> </u> | <u> </u> | $\dashv$   |  |  |
|       | 110                                    |          | -  | $\vdash$      |              |               | -        | -        | _        | Н  |  |  |
| L     | 111                                    | H        | ├  |               | <b></b>      | <u> </u>      | -        | $\vdash$ | $\vdash$ | Н  |  |  |
|       | 112                                    |          | ├—   | $\vdash$      | <del> </del> | -             | $\vdash$ |          | $\vdash$ | $\vdash$   |  |  |
|       | 110<br>111<br>112<br>113<br>114<br>115 |          | $\vdash$   | $\vdash$      | $\vdash$     | $\vdash$      | $\vdash$ | $\vdash$ | $\vdash$ | Н  |  |  |
|       | 115                                    | -        |  | $\vdash$      | _            | $\vdash$      | $\vdash$ | $\vdash$ | $\vdash$ | ${\mathbb H}$  |  |  |
|       | 116                                    | -        | $\vdash$   | $\vdash$      |              |               |          | $\vdash$ | H        | $\forall$  |  |  |
|       | 117                                    | т        | <del>                                     </del> | $\vdash$      | _            | $\vdash$      | $\vdash$ | $\vdash$ | $\vdash$ | Н  |  |  |
| -     | 118                                    |          | _  | $\vdash$      | _            |               | _        | $\vdash$ | Т        | T  |  |  |
|       | 118<br>119                             |          |  | _             |              |               |          |          |          | П  |  |  |
|       | 120<br>121<br>122                      |          |  |               |              |               |          | Т        | ┢        | П  |  |  |
|       | 121                                    |          |  |               |              |               |          |          | Г        | П  |  |  |
|       | 122                                    |          |  |               |              |               |          |          |          |  |  |  |
|       | 123<br>124<br>125                      |          |  |               |              |               |          |          |          |  |  |  |
|       | 124                                    |          |  |               |              |               |          |          |          | Ш  |  |  |
|       | 125                                    |          |  |               |              |               |          | L        |          | Ш  |  |  |
|       | 126<br>127                             |          |  | _             | _            |               |          |          |          | Щ  |  |  |
|       | 127                                    |          | <u> </u>   | <u> </u>      | _            |               | _        |          | <u> </u> | Ц  |  |  |
|       | 128                                    |          | <u> </u>   | <u> </u>      | _            | <u> </u>      | <u> </u> | <u> </u> | <u> </u> | Н  |  |  |
|       | 129<br>130                             | _        | <u> </u>   | <b> </b> _    | _            | _             |          | <u> </u> | <u> </u> | Н  |  |  |
|       | 130                                    | _        |  |               | _            | _             |          | <u> </u> | <u> </u> | Н  |  |  |
|       | 131<br>132                             |          | -  | -             |              | _             |          |          | -        | $\vdash$   |  |  |
|       | 133                                    | -        |  | -             |              |               |          | -        | ⊢        | Н  |  |  |
|       | 134                                    |          | $\vdash$   | $\vdash$      | _            | <del></del> - |          | $\vdash$ | $\vdash$ | Н  |  |  |
|       | 135                                    | -        | $\vdash$   | $\vdash$      | _            |               |          | $\vdash$ | $\vdash$ | H  |  |  |
|       | 134<br>135<br>136                      |          | Н  | $\vdash$      |              | -             |          | $\vdash$ |          | Н  |  |  |
|       | 137                                    |          |  |               | <u> </u>     |               |          | T        | <u> </u> | Н  |  |  |
|       | 137<br>138                             |          | Г  |               |              |               |          | Г        | T        | П  |  |  |
|       | 139                                    |          |  |               |              |               | Г        |          |          | П  |  |  |
|       | 140                                    |          |  |               |              |               |          |          |          |  |  |  |
|       | 141                                    |          |  |               |              |               |          |          |          |  |  |  |
|       | 142                                    |          |  |               |              | Ĺ             |          |          |          |  |  |  |
|       | 143                                    |          |  | $\Box$        |              |               | L        |          |          |  |  |  |
|       | 144                                    |          | _  | $oxed{\Box}$  |              |               | L        |          | L        | Ш  |  |  |
|       | 145                                    |          |  | <u> </u>      |              | _             |          | <u> </u> | L_       | Щ  |  |  |
|       | 146                                    |          | <u> </u>   | <u> </u>      | <u> </u>     | <b> </b>      | <u> </u> | <u> </u> | $\vdash$ | Щ  |  |  |
|       | 147                                    | <u> </u> | L_   | $\vdash$      | _            | L             | ╙        | <u> </u> | L        | Щ  |  |  |
|       | 148                                    | <u> </u> | <u> </u>   |               | <u> </u>     | <u> </u>      |          | <u> </u> | <u> </u> | Н  |  |  |
|       | 149                                    | <u> </u> | <u> </u>   | <u> </u>      | $\vdash$     | H             | <u> </u> | <u> </u> | <u> </u> | Н  |  |  |
|       | 150                                    |          | L  |               | ᆫ            | L_            | L.       | L_       |          | $ldsymbol{ld}}}}}}$ |  |  |